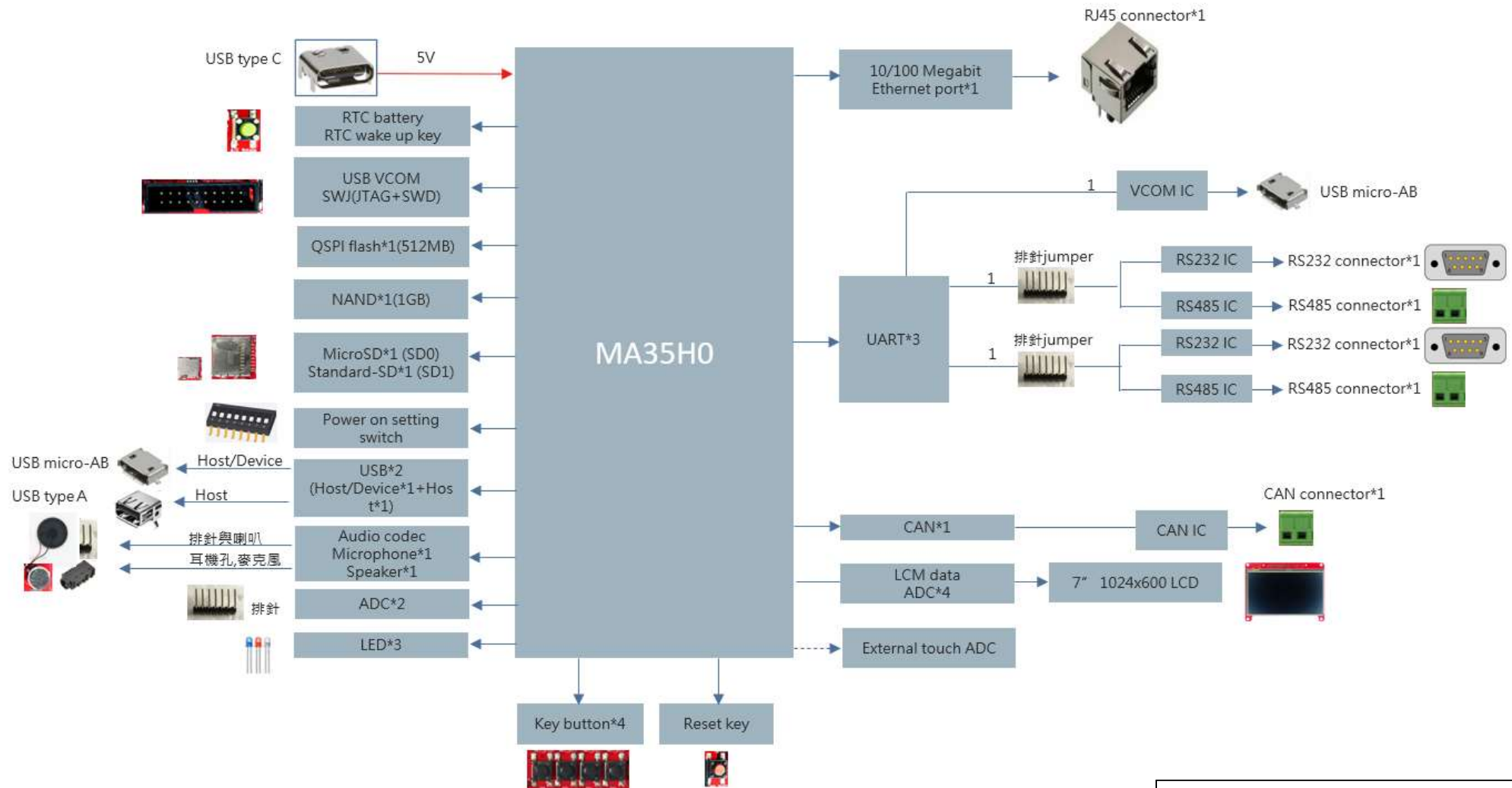


# MA35H0 Block diagram



**nuvoTon Technology Corp.**

Title  
**NuMaker-HMI-MA35H04F70 (LQFP216)**

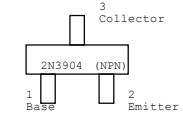
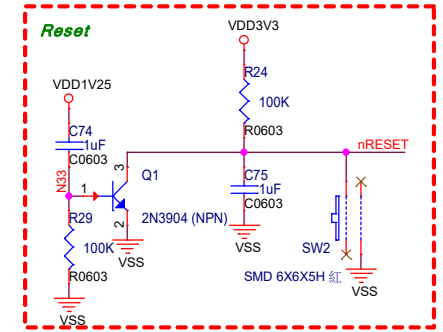
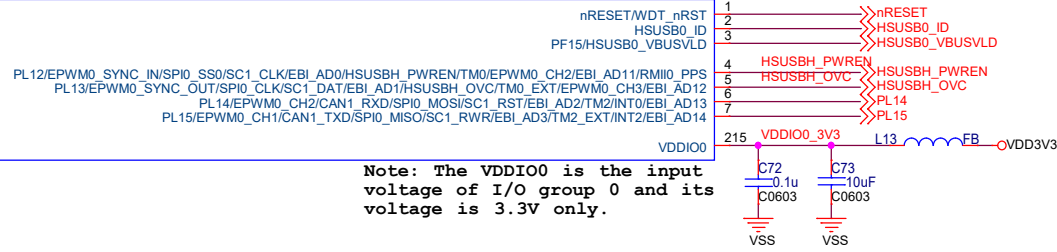
Size B Document Number  
**01. System Block** Rev V1.0

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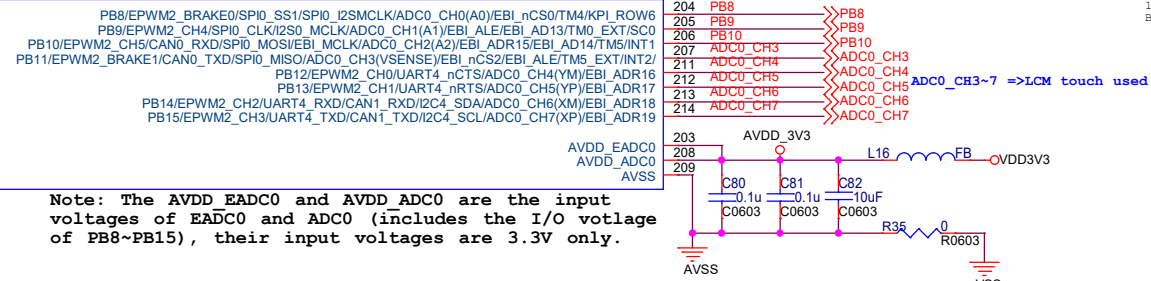
U1C

MA35H04F764C



U1M

MA35H04F764C

**nuvoTon Technology Corp.**Title  
**NuMaker-HMI-MA35H04F70 (LQFP216)**Size B Document Number  
**03. VDDIO0/6/7/ADC** Rev V1.0

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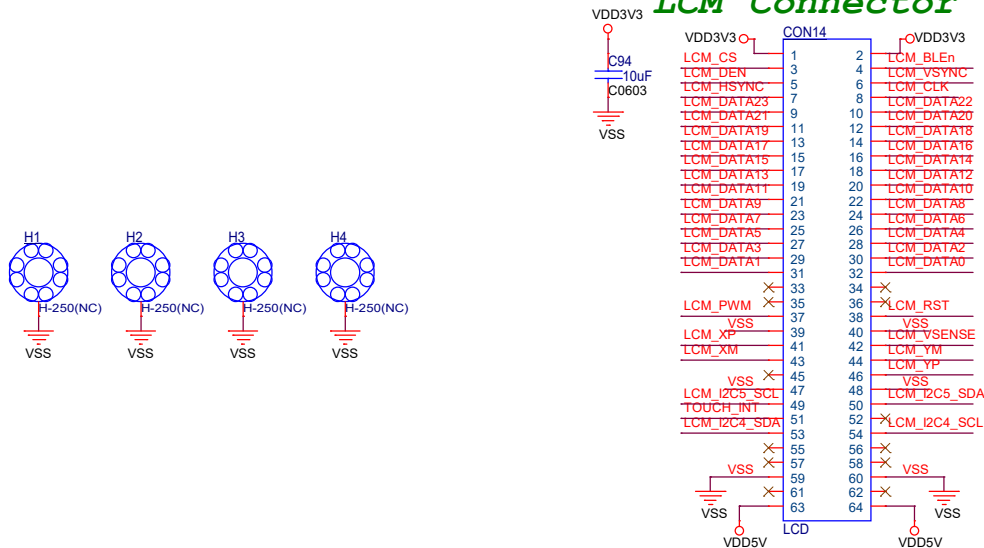
U1G

PG8/EPWM1\_CH4/LCM\_VSYNC/LCM\_MPU\_RD/EN/EBI\_AD7/EBI\_nCS0  
 PG9/EPWM1\_CH5/LCM\_HSYNC/LCM\_MPU\_WR/RW/EBI\_AD8/EBI\_nCS1  
 PG10/LCM\_CLK/EBI\_AD9/EBI\_nWRH  
 PK4/LCM\_DEN/LCM\_MPU\_RS/EBI\_AD10/EBI\_nWRL  
 P18/UART4\_nCTS/LCM\_DATA0/LCM\_MPU\_D0/EBI\_AD11  
 P19/UART4\_nRTS/LCM\_DATA1/LCM\_MPU\_D1/EBI\_AD12  
 P110/UART4\_RXD/LCM\_DATA2/LCM\_MPU\_D2/EBI\_AD13  
 P111/UART4\_TXD/LCM\_DATA3/LCM\_MPU\_D3/EBI\_AD14  
 P112/UART6\_nCTS/UART5\_RXD/LCM\_DATA4/LCM\_MPU\_D4  
 P113/UART6\_nRTS/UART5\_TXD/LCM\_DATA5/LCM\_MPU\_D5  
 P114/UART6\_RXD/LCM\_DATA6/LCM\_MPU\_D6  
 P115/UART6\_TXD/LCM\_DATA7/LCM\_MPU\_D7  
 PH0/LCM\_DATA8/LCM\_MPU\_D8  
 PH1/LCM\_DATA9/LCM\_MPU\_D9  
 PH2/LCM\_DATA10/LCM\_MPU\_D10  
 PH3/LCM\_DATA11/LCM\_MPU\_D11  
 PH4/UART9\_RXD/LCM\_DATA12/LCM\_MPU\_D12  
 PH5/UART9\_TXD/LCM\_DATA13/LCM\_MPU\_D13  
 PH6/LCM\_DATA14/LCM\_MPU\_D14  
 PH7/LCM\_DATA15/LCM\_MPU\_D15  
 PC12/LCM\_DATA16/LCM\_MPU\_D16  
 PC13/LCM\_DATA17/LCM\_MPU\_D17  
 PC14/LCM\_DATA18/LCM\_MPU\_CS  
 PC15/LCM\_DATA19/LCM\_MPU\_TE/LCM\_MPU\_VSYNC  
 PH12/LCM\_DATA20  
 PH13/LCM\_DATA21  
 PH14/LCM\_DATA22  
 PH15/LCM\_DATA23

MA35H04F764C

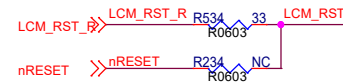
Note: The VDDIO4 is the input voltage of I/O group 4 and its voltage is 1.8V or 3.3V. This voltage should be matched with the voltage of external connected device. (The default is 3.3V on this board)

## LCM Connector

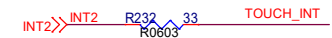


LCM\_PWM\_R >> LCM\_PWM\_R R239 33 R0603 LCM\_PWM  
 LCM\_CS\_R >> LCM\_CS\_R R240 33 R0603 LCM\_CS  
 LCM\_BLEn\_R >> LCM\_BLEn\_R R241 33 R0603 LCM\_BLEn

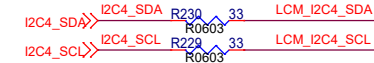
## LCM\_RST



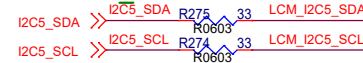
## TOUCH\_INT (INT2)



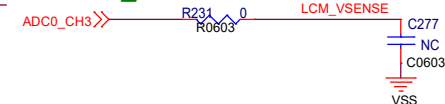
## I2C4



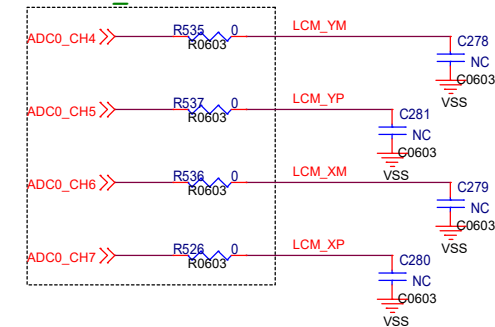
## I2C 5



## LCM\_VSENSE



## LCM Touch



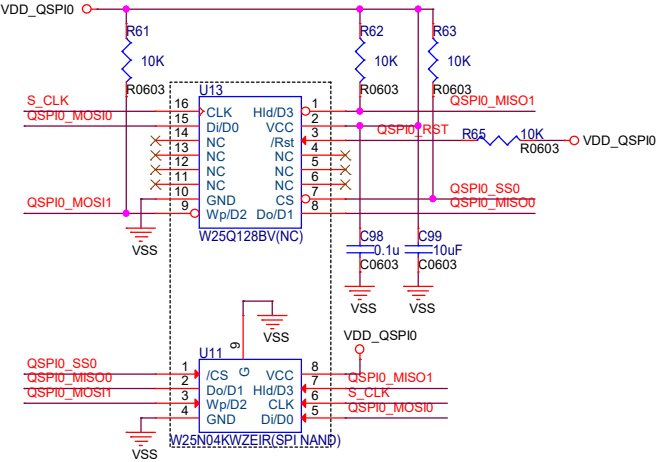
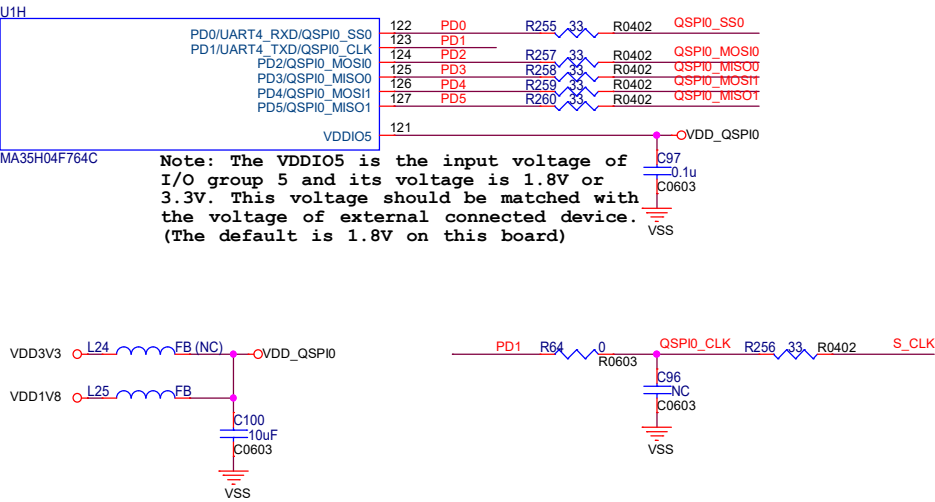
**nuvoTon Technology Corp.**

Title  
**NuMaker-HMI-MA35H04F70 (LQFP216)**

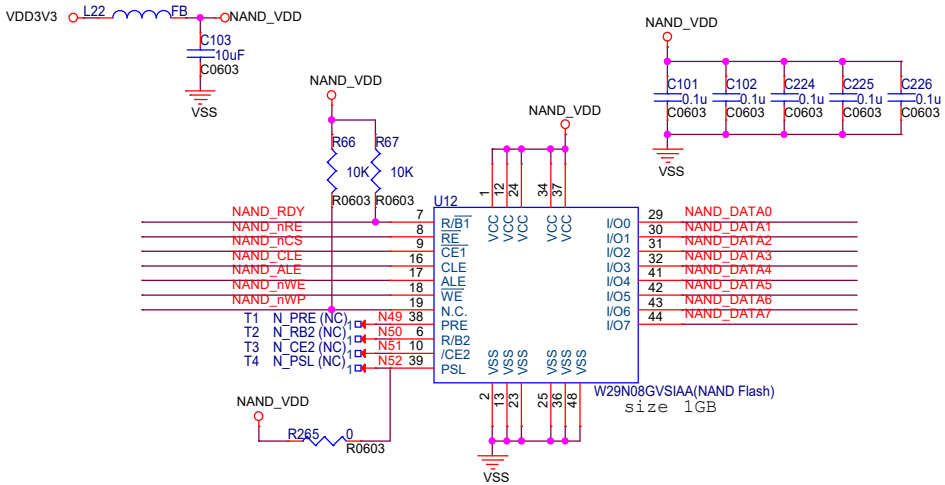
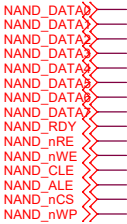
Size B Document Number  
**06. LCM (VDDIO4)** Rev V1.0

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QSPI0\_Flash



NAND\_Flash



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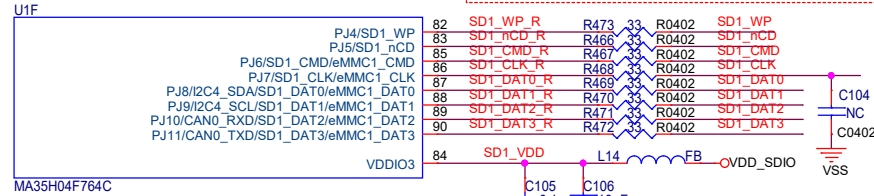
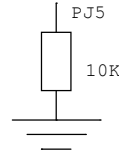
Title		
NuMaker-HMI-MA35H04F70 (LQFP216)		
Size B	Document Number	Rev V1.0
07. NAND/QSPI0 (VDDIO5)		
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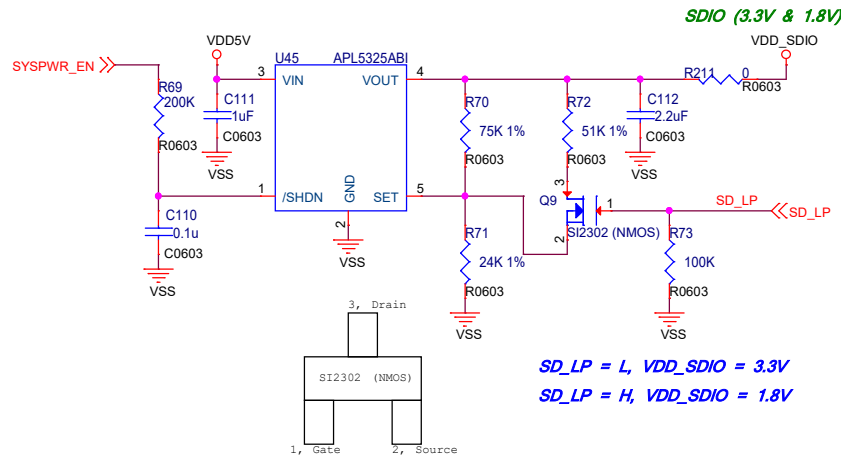




Note: If these PJ6~PJ11 pins (eMMC1\_xxx) are used to connect with eMMC device and act as the booting source, please pulls the PJ5 pin (SD1\_nCD) to low.



Note: The VDDIO3 is the input voltage of I/O group 3 and its voltage is 1.8V or 3.3V. This voltage should be matched with the voltage of external connected device. (The default is 3.3V but can be controlled by GPIO PN11 high or low state that follows the SD3.0 timing on this board)

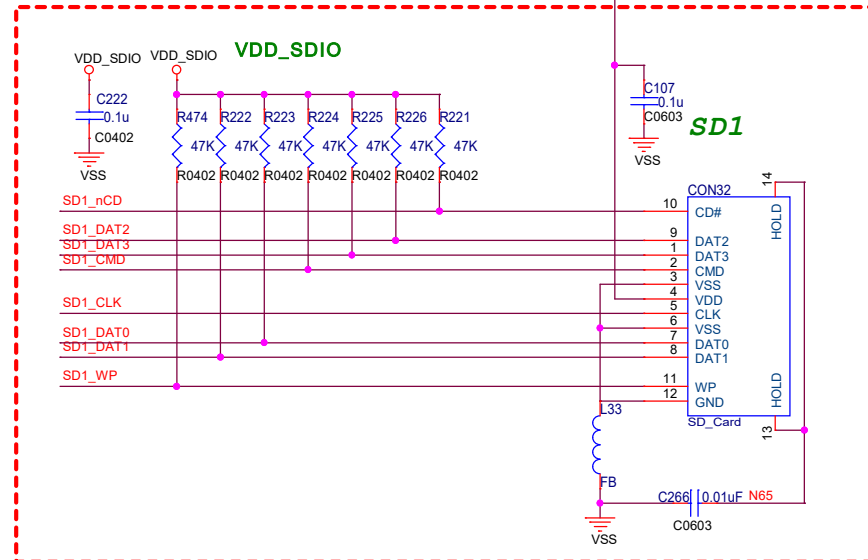
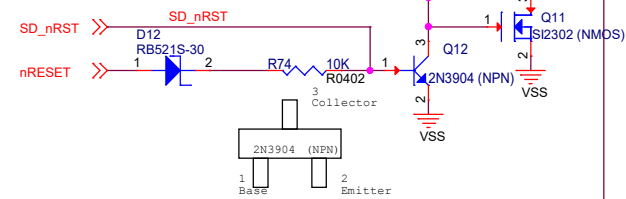


SD\_LP = L, VDD\_SDIO = 3.3V  
SD\_LP = H, VDD\_SDIO = 1.8V

For SD card compatibility

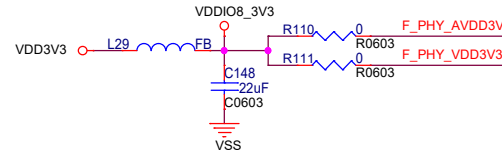
SD\_nRST = L, VDD\_SD OFF  
SD\_nRST = H, VDD\_SD ON

nRESET = L, VDD\_SD OFF  
nRESET = H, VDD\_SD ON

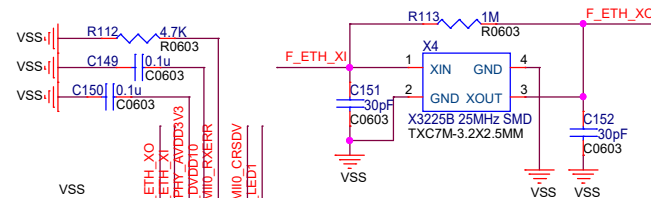


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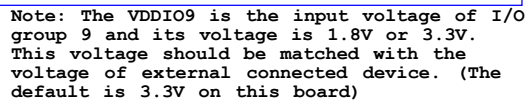
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NuMaker-HMI-MA35H04F70 (LQFP216)		
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09. SD1 (VDDIO3)		
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PHY Address 1  
:2'b01

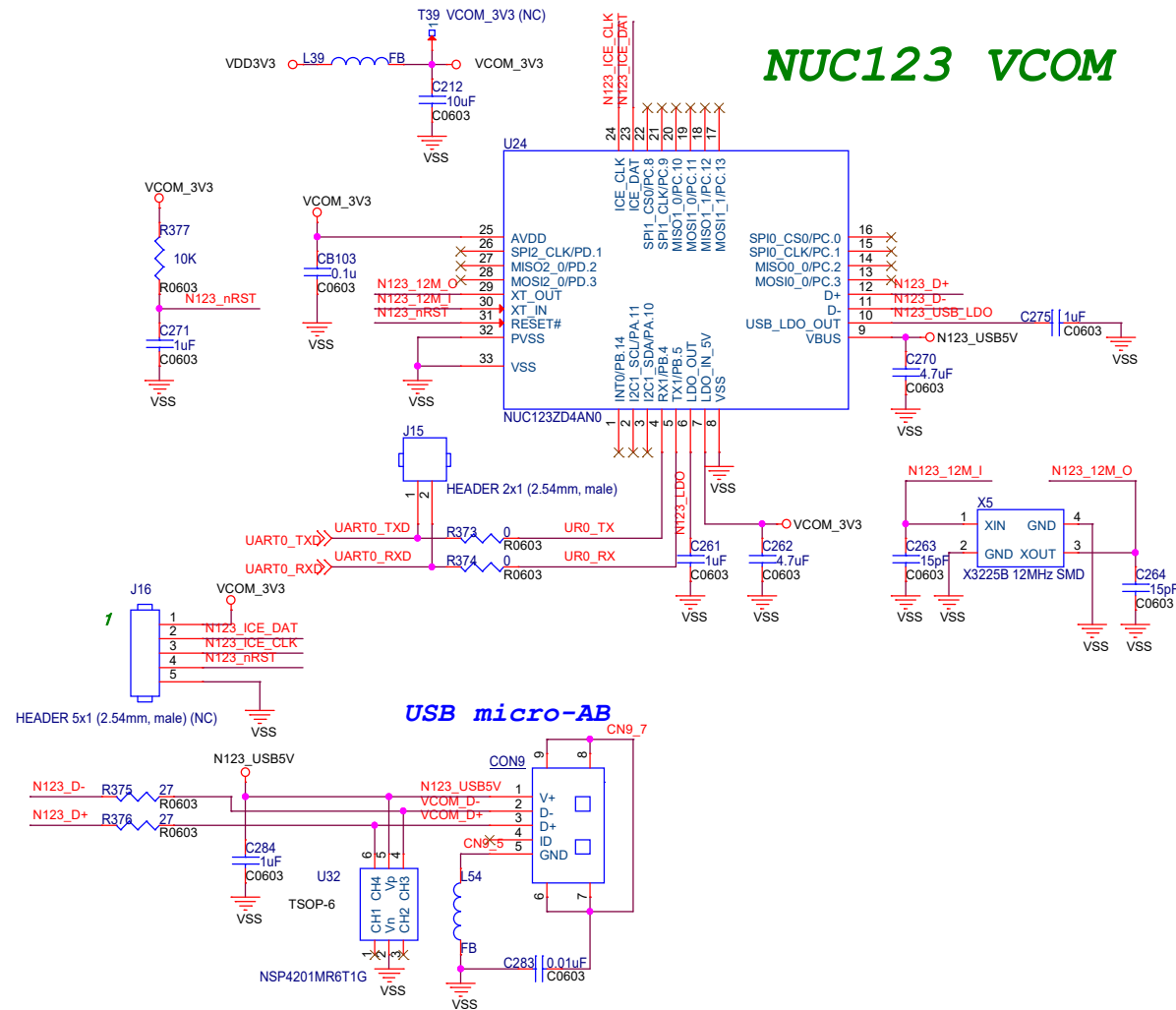


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# NUC123 VCOM

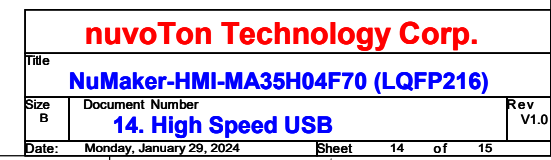


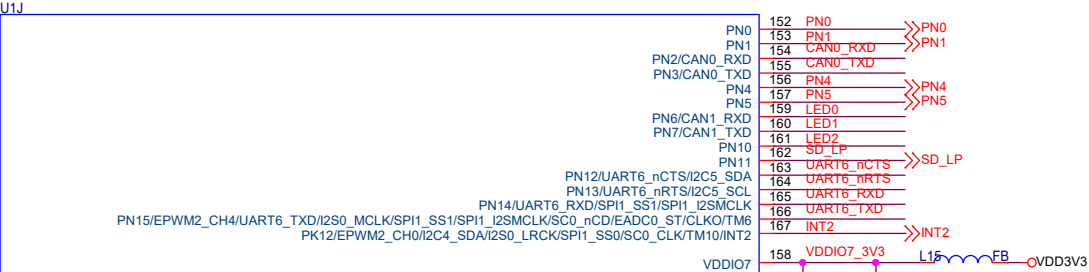
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**NuMaker-HMI-MA35H04F70 (LQFP216)**

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**13. NUC123 VCOM** Rev V1.0

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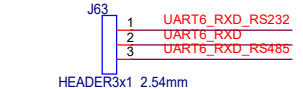
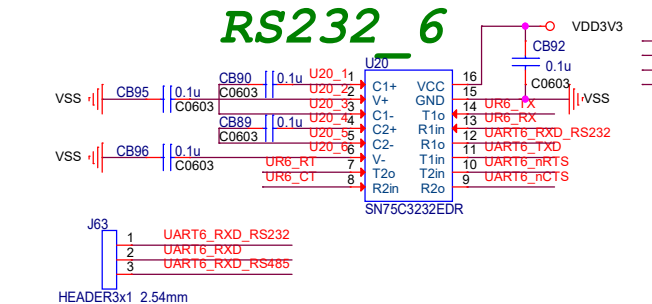




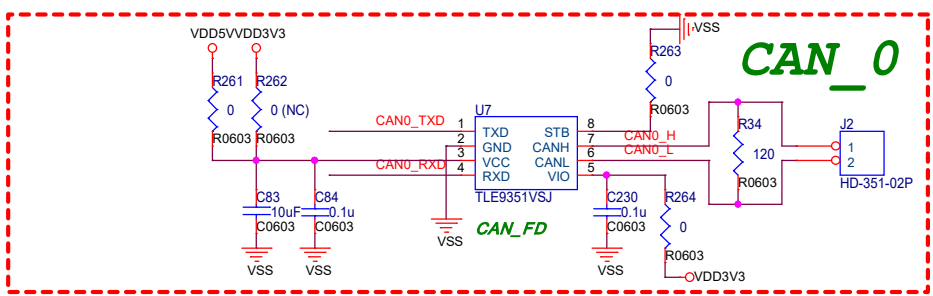
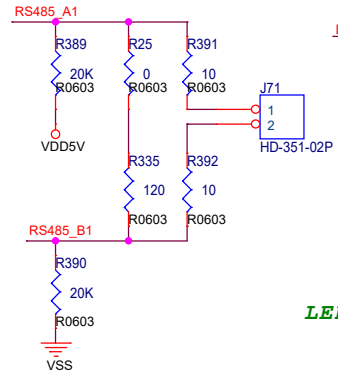
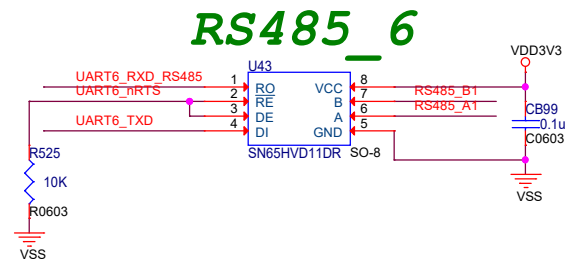
MA35H04F764C

Note: The VDDIO7 is the input voltage of I/O group 7 and its voltage is 1.8V or 3.3V. This voltage should be matched with the voltage of external connected device. (The default is 3.3V on this board)

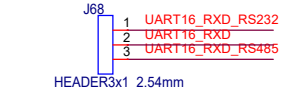
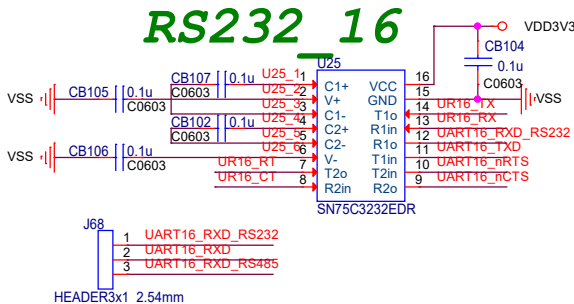
## RS232\_6



## RS485\_6

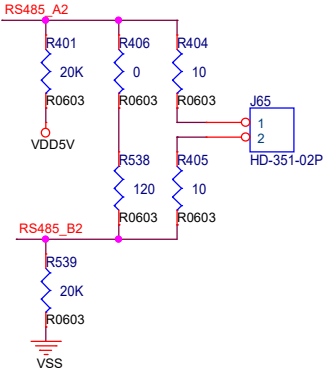
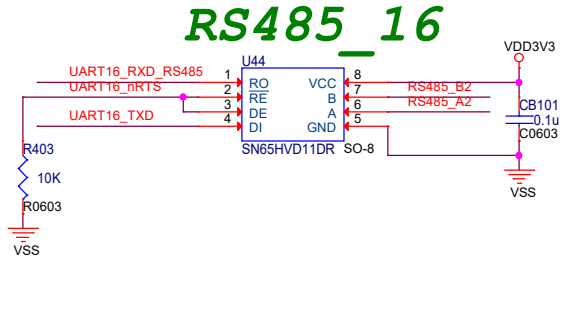


## RS232\_16



HEADER3x1\_2.54mm

## RS485\_16



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